

## Weskeag Creek

South Thomaston, Thomaston, Rockland, Owl's Head

### Description:

This tidal wetland complex is a good example of wetland vegetation across a salinity gradient. At the upper end of the marsh (toward Thomaston Street), the vegetation is a freshwater cattail/shrub swamp, dominated by speckled alder, broad-leaved cattail, blue-joint grass, and sweet gale. Other indicators of freshwater conditions in this portion of the marsh include sensitive fern and marsh fern.

Further downstream the marsh becomes open and brackish, with vegetation occurring in almost uniform patches characteristic of tidal marshes. Frequent species indicative of brackish (but not salt) conditions include soft-stem bulrush, three-square bulrush, and narrow-leaved cattail. Less frequent species indicative of brackish conditions include wire rush, creeping bent-grass, twig rush, and sweet grass. One of the more interesting features of this brackish marsh is the presence of pannes (small tidally flooded pools) with the sedge *Carex viridula*, which occurs in brackish marshes as well as inland calcareous wetlands. Also noteworthy was a large patch of foxtail barley, an uncommon (but not rare) native grass.

Toward the Buttermilk Road bridge and further downstream, the marsh becomes a more typical salt marsh, with salt hay dominant. Other characteristic salt marsh species in this area include saltmarsh cordgrass, black grass, arrow-grass, seaside plantain, sea lavender, samphire, and saltmarsh bulrush. Open water pannes are numerous in this section.

The Weskeag River also is valuable habitat for a variety of coastal bird species. In surveys of 23 coastal marshes conducted in 1997, MDIFW biologists noted 31 species at the Waldo Tyler Management Area -- the largest number of species of any marsh in the Mid-Coast and Penobscot Bay regions. The marsh also supports both the Nelson's and salt-marsh sharp-tail sparrows, two species recognized by Partners in Flight as the highest priority birds for conservation in northeastern coastal habitats.

### Rare Species/Natural Communities Summary Table:

Common Name	Latin Name	State Status	G-Rank	S-Rank	Habitat
Brackish Tidal Marsh			not ranked	S3	
Salt-marsh sharp-tailed sparrow	<i>Ammodramus caudacutus</i>	SC	G4	S3B	salt & brackish marshes
Nelson's sharp-tailed sparrow	<i>Ammodramus nelsoni</i>	SC	G5	S3S4B	salt & brackish marshes

### Other Resources Mapped by MDIFW:

A Shorebird Feeding Area and Coastal Wading Bird and Waterfowl Habitat are mapped within the Weskeag River tidal marsh.

### Conservation Considerations:

- The marshes have been irregularly ditched in the past, but these ditches are beginning to fill in. Many of these drainage ditches have been plugged in the last several decades by various methods. Currently ditches are being plugged to retain tidal "sheet flow" of water through a cooperative effort of MDIFW and the U.S. Fish and Wildlife Service.
- The marshes are surrounded by upland mixed woods and scattered agricultural and residential lands. Heavy industry is close by but not directly abutting the marsh. Some of the bird species may be susceptible to changes in adjacent land use, including expansion of a nearby industrial park.

- The marshes have not been altered by invasive species such as purple loosestrife or common reed, but these species may be future threats.
- The Buttermilk Road crossing causes a minor constriction of tidal flow, and the slight vegetation upstream and downstream of this crossing reflect this constriction. Any future road or bridge work in the area should be conducted with consideration of maintaining or widening the tidal channel.
- While different species seem to have unique buffering requirements, wider buffers generally provide better protection for riparian and wetland-dependant species.

**Protection Status:**

MDIFW owns and manages over 300 acres on both sides of Buttermilk Road. Most of this acreage is wetland. The Maine Coast Heritage Trust has been working to provide additional protection to this area in the form of riparian buffers.

# Rockland Bog

Rockland

## Description:

At nearly 700 acres, Rockland Bog is the largest peatland complex in Mid-Coast Maine. Within the town of Rockland, the Bog -- also known as Oyster River Bog -- lies within a relatively undeveloped landscape of sparse residential lands to the east and undeveloped lands to the west. It has long been recognized as a unique area by local naturalists, and it was the subject of a University of Michigan Master's Degree Thesis in 1983 entitled *The Oyster River Bog: A Case Study in Wildland Management on Private Property*.

The Bog contains several different vegetation types. Based on data collected by University of Maine in the 1980s, the largest of these types is a red maple swamp, estimated to cover roughly 30% of the wetland -- mostly at the northern end. In descending order of size, the other types are dwarf shrub bog, black spruce (*Picea mariana*) forested bog, sweet gale (*Myrica gale*) shrub fen, and sedge fen.

In a 1999 field survey to the site, ecologists noted a beaver lodge, old dams, channeled water, and an open water pond created by beaver activity. Characteristic pond species included fragrant water-lily (*Nymphaea odorata*) and cow-lily (*Nuphar variegata*). Recent beaver activity appears to have increased the area of sedge fen, dominated by slender sedge (*Carex lasiocarpa*), beaked sedge (*C. utriculata*), silvery sedge (*C. canescens*), and tussock sedge (*Carex stricta*).

Several botanical features are unique to the bog. It contains a small area (a few acres) of plants characteristic of bogs further Downeast --- tufted club-rush (*Trichophorum cespitosum*) and dwarf huckleberry (*Gaylussacia dumosa*). It also supports a large population of the dragon's mouth orchid (*Arethusa bulbosa*), considered uncommon to rare (but not state-listed) in Maine.



Rockland Bog

MNAP file photo, Lisa Windhausen

*Rare Species/Natural Communities Summary Table:*

Common Name	Latin Name	State Status	G-Rank	S-Rank	Habitat
<b>Natural Communities</b>					
Unpatterned Fen Ecosystem			not ranked	S4	
<b>Rare Plants</b>					
Moonwort	<i>Botrychium lunaria</i>	E	G5	S1	fields, open woods
Netted Chain Fern	<i>Woodwardia areolata</i>	PE	G5	SH	bogs, acidic wet woods

**Other Resources Mapped by MDIFW:**

A Wading Bird and Waterfowl Habitat is mapped within Rockland Bog, and a Deer Wintering Area is mapped immediately to the west (see map). .

**Conservation Considerations:**

- Use of Shoreland Zoning districts vary in each town and may not be in conformance with minimum state standards.
- Threats to these systems include hydrologic alteration (from changes in water flow or impoundment of waterways), development of adjacent uplands and associated water quality impacts, invasive species such as purple loosestrife, and poor timber harvesting practices.
- With regard to timber harvesting, strict adherence to Shoreland Zoning guidelines and Maine Forest Service Best Management Practices should help to ensure that the bog remains intact. Ideally, however, large areas of the wetland could be set aside in forever wild condition.
- The moonwort occurs in only three other locations in Maine. It was last seen in Rockland Bog in 1986 but was not re-located in 1999. The netted chain fern was last observed in the area in 1917, and it has not been documented anywhere within Maine in the last 20 years. Further surveys should be conducted to re-locate both of these species.
- Appropriate conservation strategies include open space tax treatment, conservation easement, and fee ownership.

**Protection Status:**

The city of Rockland owns over 100 acres within the Bog, and several other tracts are under conservation easement, including easements from the Center for the Study of Wetlands in Southern Maine.